

JAN 03 2002  
 PATENT & TRADEMARK OFFICE

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

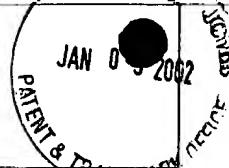
U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A1	760,304	05/1904	Butler			
	A2	1,342,741	06/1920	Day			
	A3	1,510,655	10/1924	Clark			
	A4	1,666,488	02/1927	Crawshaw			
	A5	1,913,395	11/1929	Kerrick			
	A6	2,423,674	07/1947	Agren			
	A7	2,444,755	07/1948	Steffen			
	A8	2,466,945	02/1946	Greene			
	A9	2,472,445	06/1949	Sprong			
	A10	2,484,063	10/1949	Ackley			
	A11	2,497,868	02/1950	Dalin			
	A12	2,548,360	04/1951	Germain			
	A13	2,593,477	04/1952	Newman et al.			
	A14	2,595,979	05/1952	Pevere et al.			RECEIVED APR 30 2002
	A15	2,630,306	01/1952	Evans			GROUP 3600
	A16	2,634,961	04/1953	Ljungstrom			
	A17	2,642,943	06/1953	Smith et al.			
	A18	2,670,802	03/1954	Ackley			
	A19	2,695,163	11/1954	Pearce et al.			
	A20	2,732,195	01-24-56	Ljungstrom			
	A21	2,734,579	02-14-56	Elkins			
	A22	2,780,449	02-05-57	Fisher et al.			
	A23	2,777,679	01/1957	Ljungstrom			
	A24	2,780,450	02/1957	Ljungstrom			
	A25	2,786,660	03/1957	Alleman			
	A26	2,789,805	04/1957	Ljungstrom			
	A27	2,804,149	08/1957	Kile			
	A28	2,841,375	07/1958	Salomonsson			
↓	A29	2,902,270	09/1959	Salomonsson et al.			
WG	A30	2,906,337	09/1959	Henning			TC 1700

EXAMINER: Walt D. Smith

DATE CONSIDERED: 5-2-2002

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.



APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A31	2,914,309	11/1959	Salomonsson			
	A32	2,923,535	02/1960	Ljungstrom			
	A33	2,939,689	06/1960	Ljungstrom			
	A34	2,954,826	10/1960	Sievers			
	A35	2,974,937	03/1961	Kiel			
	A36	2,994,376	08/1961	Crawford et al.			
	A37	2,998,457	08/1961	Paulsen			
	A38	3,004,603	10/1961	Rogers et al.			
	A39	3,007,521	11/1961	Trantham et al.			
	A40	3,095,031	06/1963	Eurenius et al.			
	A41	3,105,545	10/1963	Prats et al.			
	A42	3,106,244	10/1963	Parker			
	A43	3,110,345	11/1963	Reed et al.			
	A44	3,113,623	12/1963	Krueger			
	A45	3,114,417	12/1963	McCarthy			
	A46	3,131,763	05/1964	Kunetka et al.			
	A47	3,139,928	07/1964	Broussard			
	A48	3,142,336	07/1964	Doscher			
	A49	3,149,672	10/1964	Orkiszewski et al.			
	A50	3,163,745	12/1964	Boston			
	A51	3,164,207	01/1965	Thessen et al.			
	A52	3,182,721	05/1965	Hardy			
	A53	3,183,675	05/1965	Schroeder			
	A54	3,191,679	06/1965	Miller			
	A55	3,205,946	10/1965	Prats et al.			
	A56	3,207,220	10/1965	Williams			
V	A57	3,208,531	10/1965	Tamplen			
WG	A58	3,209,825	10/1965	Alexander et al.			

EXAMINER: Walter D. Duff

DATE CONSIDERED: 5-2-2003

TC 1700

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

RECEIVED  
JAN 04 2002

JAN 03 2002  
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A59	3,237,689	03/1966	Justheim			
	A60	3,241,611	03/1966	Dougan			
	A61	3,250,327	05/1966	Crider			
	A62	3,267,680	03/1966	Schlumberger			
	A63	3,284,281	11/1966	Thomas			
	A64	3,338,306	08/1967	Cook			
	A65	3,528,501	09/1970	Parker			
	A66	3,595,082	07/1971	Miller et al.			
	A67	3,973,628	08/1976	Colgate			
	A68	3,992,148	11/1975	Child			
	A69	3,993,132	11/1977	Garrett			
	A70	4,016,239	04/1977	Fenton			
	A71	4,076,761	02/1978	Chang et al.			
	A72	4,089,372	05/1978	Terry			RECEIVED APR 3 6 2002
	A73	4,093,026	06/1978	Ridley			GROUP 3600
	A74	4,096,163	06/1978	Chang, et al.			
	A75	4,130,575	12/1978	Jorn et al.			
	A76	4,133,825	01/1979	Stroud et al.			
	A77	4,138,442	02/1979	Chang et al.			
	A78	4,186,801	02/1980	Madgavkar et al.			
	A79	4,250,230	02/1981	Terry			
	A80	4,250,962	02/1981	Madgavkar et al.			
	A81	4,273,188	06/1981	Vogel et al.			
	A82	4,274,487	06/1981	Hollingsworth et al.			
	A83	4,299,086	11/1981	Madgavkar et al.			
	A84	4,299,285	11/1981	Tsai et al.			
	A85	4,359,687	11/1982	Vinegar et al.			
	A86	4,363,361	12/1982	Madgavkar et al.			REC'D JAN 04 2002
WG	A87	4,366,668	01/1983	Madgavkar et al.			REC'D JAN 04 2002
WG	A88	4,378,048	03/1983	Madgavkar et al.			REC'D JAN 04 2002

EXAMINER: Walt D. Duff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

JAN 2002  
 PATENT & TRADEMARK OFFICE  
 U.S. DEPARTMENT OF COMMERCE

ATTY. DKT. NO. 5659-07000/TH1995

SERIAL NO. 09/841,289

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A89	4,381,641	05/1983	Madgavkar et al.			
	A90	4,398,151	08/1983	Vinegar et al.			
	A91	4,407,973	10/1983	van Dijk et al.			
	A92	4,409,090	10/1983	Hanson et al.			
	A93	4,444,258	04/1984	Kalmar			
	A94	4,501,445	02/1985	Gregoli			
	A95	4,530,401	07/1985	Hartman et al.			
	A96	4,540,882	10/1985	Vinegar et al.			
	A97	4,542,648	10/1985	Vinegar et al.			
	A98	4,570,715	02/1986	Van Meurs et al.			
	A99	4,571,491	02/1986	Vinegar et al.			
	A100	4,572,299	02/1986	Vanegmond et al.			
	A101	4,583,046	04/1986	Vinegar et al.			
	A102	4,583,242	04/1986	Vinegar et al.			
	A103	4,594,468	06/1986	Minderhoud			
	A104	4,597,441	07/1986	Ware et al.			RECEIVED
	A105	4,605,680	08/1986	Beuther et al.			APR 30 2002
	A106	4,613,754	09/1986	Vinegar et al.			
	A107	4,616,705	10/1986	Stegemeier et al.			GROUP 3000
	A108	4,635,197	01/1987	Vinegar et al.			
	A109	4,640,352	02/1987	Vanmeurs et al.			
	A110	4,644,283	02/1987	Vinegar et al.			
	A111	4,658,215	04/1987	Vinegar et al.			
	A112	4,663,711	05/1987	Vinegar et al.			
	A113	4,671,102	06/1987	Vinegar et al.			
	A114	4,716,960	01/1988	Eastlund et al.			
	A115	4,719,423	01/1988	Vinegar et al.			
	A116	4,728,892	03/1988	Vinegar et al.			
WG	A117	4,730,162	03/1988	Vinegar et al.			
WG	A118	4,743,854	05/1988	Vinegar et al.			TC 1700

EXAMINER:

Walter Q. Duff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

JAN 2002  
 PATENT & TRADEMARK OFFICE

ATTY. DKT. NO. 5659-07000/TH1995  
 APPLICANT: Wellington, et al.  
 FILING DATE: April 24, 2001

SERIAL NO. 09/841,289  
 GROUP: 1764

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A119	4,762,425	08/1988	Shakkottai et al.			
	A120	4,769,602	09/1988	Vinegar et al.			
	A121	4,769,606	09/1988	Vinegar et al.			
	A122	4,793,656	12/1988	Siddoway et al.			
	A123	4,827,761	05/1989	Vinegar et al.			
	A124	4,848,924	07/1989	Nuspl et al.			
	A125	4,856,341	08/1989	Vinegar et al.			
	A126	4,860,544	08/1989	Krieg et al.			
	A127	4,866,983	09/1989	Vinegar et al.			
	A128	4,884,455	12/1989	Vinegar et al.			
	A129	4,886,118	12/1989	Van Meurs et al.			
	A130	4,927,857	05/1990	McShea III et al.			
	A131	4,974,425	12/1990	Krieg et al.			
	A132	4,983,319	01/1991	Gregoli et al.			
	A133	4,984,594	01/1991	Vinegar et al.			
	A134	4,987,368	01/1991	Vinegar			
	A135	4,994,093	02/1991	Wetzel et al.			
	A136	5,014,788	05/1991	Puri et al.			
	A137	5,046,559	10/1991	Glandt			
	A138	5,050,386	09/1991	Krieg et al.			
	A139	5,060,287	10/1991	Van Egmond			
	A140	5,060,726	10/1991	Glandt et al.			
	A141	5,065,818	11/1991	Van Egmond			
	A142	5,168,927	12/1992	Stegemeier et al.			
	A143	5,189,283	02/1993	Carl, Jr. et al.			
	A144	5,190,405	03/1993	Vinegar et al.			
	A145	5,207,273	05/1993	Cates et al.			
	A146	5,211,230	05/1993	Ostapovich et al.			
WG	A147	5,226,961	07/1993	Nahm et al.			
WG	A148	5,229,583	07/1993	van Egmond et al.			

EXAMINER: Walter D. Smith

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

JAN 03 2002  
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A149	5,236,039	08/1993	Edelstein et al.			
	A150	5,255,742	10/1993	Mikus			
	A151	5,297,626	03/1994	Vinegar et al.			
	A152	5,306,640	04/1994	Vinegar et al.			
	A153	5,318,116	06/1994	Vinegar et al.			
	A154	5,339,897	08/1994	Leaute			
	A155	5,340,467	08/1994	Gregoli et al.			
	A156	5,349,859	09/1994	Kleppe			
	A157	5,388,640	02/1995	Puri et al.			
	A158	5,388,641	02/1995	Yee et al.			
	A159	5,388,642	02/1995	Puri et al.			
	A160	5,388,643	02/1995	Yee et al.			
	A161	5,388,645	02/1995	Puri et al.			
	A162	5,391,291	02/1995	Winquist et al.			
	A163	5,392,854	02/1995	Vinegar et al.			RECEIVED
	A164	5,404,952	04/1995	Vinegar et al.			APR 30 2002
	A165	5,409,071	04/1995	Wellington et al.			
	A166	5,411,089	05/1995	Vinegar et al.			
	A167	5,415,231	05/1995	Northrop et al.			GHOUP 3600
	A168	5,431,224	07/1995	Laali			
	A169	5,433,271	07/1995	Vinegar et al.			
	A170	5,437,506	08/1995	Gray			
	A171	5,439,054	08/1995	Chaback et al.			
	A172	5,454,666	10/1995	Chaback et al.			
	A173	5,497,087	03/1996	Vinegar et al.			
	A174	5,498,960	03/1996	Vinegar et al.			
	A175	5,525,322	06/1996	Willms			
	A176	5,553,189	09/1996	Stegemeier et al.			
WG	A177	5,554,453	09/1996	Steinfeld et al.			
WG	A178	5,566,756	10/1996	Chaback et al.			TC 1700

EXAMINER: *Walter D. Duff*

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the Patent Owner

JAN 03 2002  
 PATENT & TRADEMARK OFFICE  
 U.S. GOVERNMENT

ATTY. DKT. NO. 5659-07000/TH1995  
 APPLICANT: Wellington, et al.  
 FILING DATE: April 24, 2001

SERIAL NO. 09/841,289  
 GROUP: 1764

**U.S. PATENT DOCUMENTS**

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	A179	5,624,188	04/1997	West			
	A180	5,656,239	08/1997	Stegemeier et al.			
	A181	5,676,212	10/1997	Kuckles			
	A182	5,862,858	01/1999	Wellington et al.			
	A183	5,899,269	05/1999	Wellington et al.			
	A184	5,968,349	10/1999	Duyvesteyn et al.			
	A185	5,984,010	11/1999	Elias et al.			
	A186	5,985,138	11/1999	Humphreys			
	A187	5,997,214	12/1999	de Rouffignac et al.			
	A188	6,016,867	01/2000	Gregoli et al.			
	A189	6,016,868	01/2000	Gregoli et al.			
	A190	6,019,172	02/2000	Wellington et al.			
	A191	6,023,554	02/2000	Vinegar et al.			
	A192	6,056,057	05/2000	Vinegar et al.			
	A193	6,079,499	06/2000	Mikus et al.			
	A194	6,085,512	07/2000	Agee et al.			
	A195	6,094,048	07/2000	Vinegar et al.			
	A196	6,102,122	08/2000	de Rouffignac			
	A197	6,102,622	08/2000	Vinegar et al.			
	A198	6,152,987	11/2000	Ma et al.			
	A199	6,172,124	01/2001	Wolflick et al.			
	A200	6,173,775 B1	01/2001	Elias et al.			
	A201	6,187,465	02/2001	Galloway			
WG	A202	Re. 30,738	09/1981	Bridges et al.			
WG	A203	Re. 35,696	12/1997	Mikus			

**FOREIGN PATENT DOCUMENTS**

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLAT ON YES/NO
WG	A204	121,737	03/1948	Sweden			
WG	A205	123,136	11/1948	Sweden			

EXAMINER:

*Walter D. Duff*

DATE CONSIDERED: 5-2-2003

JAN 04 2002  
 RECD

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)

JAN 03 2002  
PATENT & TRADEMARK OFFICE

ATTY. DKT. NO. 5659-07000/TH1995

APPLICANT: Wellington, et al.

FILING DATE: April 24, 2001

SERIAL NO. 09/841,289

GROUP: 1764

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLAT ON YES/NO
WG	A206	123,137	11/1948	Sweden			
	A207	123,138	11/1948	Sweden			
	A208	126,674	11/1949	Sweden			
	A209	1,196,594	11/1985	CA			
	A210	1,253,555	05/1989	CA			
	A211	1,288,043	08/1991	CA			
	A212	156,396	01/1921	GB			
	A213	674,082	06/1952	GB			
	A214	697,189	09/1953	GB			
	A215	1,454,324	11/1976	GB			
	A216	1,501,310	02/1978	GB			
	A217	2,086,416	05/1982	GB			
	A218	1836876	12/1994	SU			
	A219	0570228 B1	09/1996	EP			
	A220	99/01640	01/1999	WO			
	A221	95/06093	03/1995	WO			
	A222	95/12746	05/1995	WO			
	A223	95/33122	12/1995	WO			
	A224	95/12742	05/1995	WO			
	A225	95/12743	05/1995	WO			
↓	A226	95/12744	05/1995	WO			
WG	A227	95/12745	05/1995	WO			

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

WG	A228	Some Effects of Pressure on Oil-Shale Retorting," Society of Petroleum Engineers Journal, J.H. Bae, September, 196 pp. 287-292.
WG	A229	New in situ shale-oil recovery process uses hot natural gas; The Oil & Gas Journal; May 16, 1966, p. 151.
WG	A230	Evaluation of Downhole Electric Impedance Heating Systems for Paraffin Control in Oil Wells; Industry Applications Society 37 <sup>th</sup> Annual Petroleum and Chemical Industry Conference; The Institute of Electrical and Electronics Engineer Inc., Bosch et al., September 1990, pp. 223-227.
WG	A231	New System Stops Paraffin Build-up; Petroleum Engineer, Eastlund et al., January 1989, (3 pages).
WG	A232	Oil Shale Retorting: Effects of Particle Size and Heating Rate on Oil Evolution and Intraparticle Oil Degradation; Campbell et al. In Situ 2(1), 1978, pp. 1-47.

EXAMINER: Walter Q. Dwyer

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

JAN 10 2002

PATENT

ATTY. DKT. NO. 5659-07000/TH1995  
 APPLICANT: Wellington, et al.  
 FILING DATE: April 24, 2001

SERIAL NO. 09/841,289  
 GROUP: 1764

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

WG	A233	The Potential For In Situ Retorting of Oil Shale In the Piceance Creek Basin of Northwestern Colorado; Dougan et al Quarterly of the Colorado School of Mines, pp. 57-72.
	A234	Retorting Oil Shale Underground-Problems & Possibilities; B.F. Grant, Qtly of Colorado School of Mines, pp 39-46.
	A235	Molecular Mechanism of Oil Shale Pyrolysis in Nitrogen and Hydrogen Atmospheres, Hershkowitz et al.; Geochemistry and Chemistry of Oil Shales, American Chemical Society, 5/1983 pp. 301-316.
	A236	The Characteristics of a Low Temperature In Situ Shale Oil; George Richard Hill & Paul Dougan, Quarterly of the Colorado School of Mines, 1967; pp. 75-90.
	A237	Direct Production Of A Low Pour Point High Gravity Shale Oil; Hill et al., I & EC Product Research and Development, 6(1), March 1967; pp. 52-59.
	A238	Refining Of Swedish Shale Oil, L. Lundquist, pp. 621-627.
	A239	The Benefits of In Situ Upgrading Reactions to the Integrated Operations of the Orinoco Heavy-Oil Fields and Downstream Facilities, Myron Kuhlman, Society of Petroleum Engineers, June 2000; pp. 1-14.
	A240	Monitoring Oil Shale Retorts by Off-Gas Alkene/Alkane Ratios, John H. Raley, Fuel, Vol. 59, June 1980, pp. 419-42
	A241	The Shale Oil Question, Old and New Viewpoints, A Lecture in the Engineering Science Academy, Dr. Fredrik Ljungstrom, February 23, 1950, published in Teknisk Trdskrift, January 1951 p. 33-40.
	A242	Underground Shale Oil Pyrolysis According to the Ljungstroem Method; Svenska Skifferolje Aktiebolaget (Swedish Shale Oil Corp.), IVA, Vol. 24, 1953, No. 3, pp. 118-123.
	A243	Kinetics of Low-Temperature Pyrolysis of Oil Shale by the IITRI RF Process, Sresty et al.; 15 <sup>th</sup> Oil Shale Symposium Colorado School of Mines, April 1982 pp. 1-13.
	A244	Bureau of Mines Oil-Shale Research, H.M. Thorne, Quarterly of the Colorado School of Mines, pp. 77-90.
	A245	Application of a Microretort to Problems in Shale Pyrolysis, A. W. Weitkamp & L.C. Gutberlet, Ind. Eng. Chem. Process Des. Develop. Vol. 9, No. 3, 1970, pp. 386-395.
	A246	Oil Shale, Yen et al., Developments in Petroleum Science 5, 1976, pp. 187-189, 197-198.
	A247	The Composition of Green River Shale Oils, Glenn L. Cook, et al., United Nations Symposium on the Development and Utilization of Oil Shale Resources, 1968, pp. 1-23.
	A248	High-Pressure Pyrolysis of Green River Oil Shale, Burnham et al., Geochemistry and Chemistry of Oil Shales, American Chemical Society, 1983, pp. 335-351.
	A249	Geochemistry and Pyrolysis of Oil Shales, Tissot et al., Geochemistry and Chemistry of Oil Shales, American Chemic Society, 1983, pp. 1-11.
	A250	A Possible Mechanism of Alkene/Alkane Production, Burnham et al., Oil Shale, Tar Sands, and Related Materials, American Chemical Society, 1981, pp. 79-92.
	A251	The Ljungstroem In-Situ Method of Shale Oil Recovery, G. Salomonsson, Oil Shale and Cannel Coal, Vol. 2, Proceedings of the Second Oil Shale and Cannel Coal Conference, Institute of Petroleum, 1951, London, pp. 260-280
	A252	Developments in Technology for Green River Oil Shale, G.U. Dinneen, United Nations Symposium on the Development and Utilization of Oil Shale Resources, Laramie Petroleum Research Center, Bureau of Mines, 1968, pp.1-20.
	A253	The Thermal and Structural Properties of a Hanna Basin Coal, R.E. Glass, Transactions of the ASME, Vol. 106, June 1984, pp. 266-271.
	A254	The Thermal and Structural Properties of the Coal in the Big Coal Seam, R.E. Glass, In Situ, 8(2), 1984, pp. 193-205.
	A255	Investigation of the Temperature Variation of the Thermal Conductivity and Thermal Diffusivity of Coal, Badzioch et al., Fuel, Vol. 43, No. 4, July 1964, pp. 267-280.
V	A256	On the Mechanism of Kerogen Pyrolysis, Alan K. Burnham & James A. Happe, January 10, 1984 (17 pages).
WG	B1	Proposed Field Test of the Lins Method Thermal Oil Recovery Process in Athabasca McMurray Tar Sands, Husky Oil Company.

EXAMINER: Walter D. Duff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner



APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

WG	A257	Comparison of Methods for Measuring Kerogen Pyrolysis Rates and Fitting Kinetic Parameters, Burnham et al., March 23, 1987, (29 pages).	RECEIVED APR 29 2002 GROUP 3600
	A258	Further Comparison of Methods for Measuring Kerogen Pyrolysis Rates and Fitting Kinetic Parameters, Burnham et al., September 1987, (16 pages).	
	A259	Tests of a Mechanism for H <sub>2</sub> S Release During Coal Pyrolysis, Coburn et al., May 21, 1991, (6 pages).	
	A260	Kinetic Studies of Gas Evolution During Pyrolysis of Subbituminous Coal, J. H. Campbell et al., May 11, 1976, (14 pages).	
	A261	Excavation of the Partial Seam Crip Underground Coal Gasification Test Site, Robert J. Cena, August 14, 1987, (11 pages).	
	A262	Evolution of Sulfur Gases During Coal Pyrolysis, Oh et al., February 3, 1988, (11 pages).	
	A263	Coal Pyrolysis and Methane Decomposition In the Presence of a Hot Char Bed, Peters et al., August 1983, (21 pages).	
	A264	Pyrolysis Kinetics and Maturation of Coals from the San Juan Basin, John G. Reynolds & Alan K. Burnham, December 1992, (30 pages).	
	A265	Numerical Model of Coal Gasification in a Packed Bed, A.M. Winslow, April 1976 (27 pages).	
	A266	LLL In-Situ Coal Gasification Program, Stephens et al., June, 14, 1976 (12 pages)	
	A267	Pyrolysis of Subbituminous Coal as it Relates to In-Situ Coal Gasification, J.H. Campbell, January 17, 1977 (20 page)	
	A268	The Historical Development of Underground Coal Gasification, D. Olness & D.W. Gregg, June 30, 1977 (60 pages).	
	A269	Laboratory Measurements of Groundwater Leaching and Transport of Pollutants Produced During Underground Coal Gasification, V.A. Dalton & J.H. Campbell, March 1, 1978 (21 pages).	
	A270	The Hoe Creek II Field Experiment of Underground Coal Gasification, Preliminary Results, Aiman et al., February 27 1978 (26 pages).	
	A271	Ground-Water and Subsidence Investigations of the LLL In Situ Coal Gasification Experiments, Mead et al, July 17-2 1978 (31 pages).	
	A272	Geotechnical Instrumentation Applied to In Situ Coal Gasification Induced Subsidence, Ganow et al. June 21, 1978 (1 pages).	
	A273	The Use of Tracers in Laboratory and Field Tests of Underground Coal Gasification and Oil Shale Retorting, Lyczkowski et al., June 16, 1978 (19 pages).	
	A274	Underground Gasification of Rocky Mountain Coal, D.R. Stephens and R.W. Hill, July 18, 1978 (15 pages).	
	A275	High-BTU Gas Via In Situ Coal Gasification, Stephens et al., October, 1978 (41 pages).	
	A276	A One-Dimensional Model for In Situ Coal Gasification, Thorsness et al., August 25, 1978 (76 pages).	
	A277	Control Aspects of Underground Coal Gasification: LLL Investigations of Ground-Water and Subsidence Effects, Mead et al., November 10, 1978 (21 pages).	
	A278	Environmental Controls for Underground Coal Gasification: Ground-Water Effects and Control Technologies, Warre Mead & Ellen Raber, March 14, 1980 (19 pages).	
	A279	Results from the Third LLL Underground Coal Gasification Experiment at Hoe Creek, Hill et al., May 20, 1980 (12 pages).	
	A280	Results From the Hoe Creek No. 3 Underground Coal Gasification Experiment, Thorsness et al., May 1980, (11 page)	
	A281	Steam Tracer Experiment at the Hoe Creek No. 3 Underground Coal Gasification Field Test, C.B. Thorsness, November 26, 1980 (51 pages).	
	A282	Computer Models to Support Investigations of Surface Subsidence and Associated Ground Motion Induced by Underground Coal Gasification, R.T. Langland & B.C. Trent, July 1981 (16 pages).	

EXAMINER:

*Walter D. Daff*

DATE CONSIDERED:

*5-2-2003*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

JAN 03 2002  
 PATENT & TRADEMARK OFFICE

RECEIVED  
 APR 30 2002

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

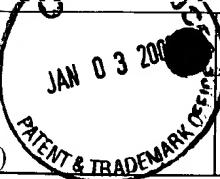
WG	A283	Burn Cavity Growth During the Hoe Creek No. 3 Underground Coal Gasification Experiment, R.W. Hill, June 1981 (28 pages).
	A284	The Controlled Retracting Injection Point (Crip) System: A Modified Stream Method for In Site Coal Gasification, R.W. Hill & M.J. Shannon, April 15, 1981 (11 pages).
	A285	Coal Block Gasification Experiments: Laboratory Results and Field Plans: C.B. Thorsness & R.W. Hill, July 1981 (23 pages).
	A286	Laboratory Scale Simulation of Underground Coal Gasification: Experiment and Theory, J.R. Creighton & (27 pages)
	A287	Underground Coal Gasification – A Leading Contender in the Synfuels Industry, D.R. Stephens, October 27, 1981 (42 pages).
	A288	Computer Models to Support Investigations of Surface Subsidence and Associated Ground Motion Induced by Underground Coal Gasification, B.C. Trent & R.T. Langland, August 1981 (40 pages).
	A289	The Hoe Creek Experiments: LLNL's Underground Coal Gasification Project in Wyoming, D.R. Stephens, October 1981 (162 pages).
	A290	Technical Underground Coal Gasification Summation: 1982 Status, Stephens et al., July 1982 (22 pages).
	A291	Review of Underground Coal Gasification Field Experiments at Hoe Creek (34 pages).
	A292	Underground Coal Gasification Using Oxygen and Steam, Stephens et al., January 19, 1984 (37 pages).
	A293	Shale Oil Cracking Kinetics and Diagnostics, Bissell et al., November 1983, (27 pages).
	A294	Mathematical Modeling of Modified In Situ and Aboveground Oil Shale Retorting, Robert L. Braun, January 1981 (4 pages).
	A295	Progress Report on Computer Model for In Situ Oil Shale Retorting, R.L. Braun & R.C.Y. Chin, July 14, 1977 (34 pages).
	A296	Analysis of Multiple Gas-Solid Reactions During the Gasification of Char in Oil Shale Blocks, Braun et al., April 1981 (14 pages).
	A297	Chemical Kinetics and Oil Shale Process Design, Alan K. Burnham, July 1993 (16 pages).
	A298	Reaction Kinetics and Diagnostics For Oil Shale Retorting, Alan K. Burnham, October 19, 1981 (32 pages).
	A299	Reaction Kinetics Between Steam and Oil Shale Char, A.K. Burnham, October 1978 (8 pages).
	A300	General Kinetic Model of Oil Shale Pyrolysis, Alan K. Burnham & Robert L. Braun, December 1984 (25 pages).
	A301	General Model of Oil Shale Pyrolysis, Alan K. Burnham & Robert L. Braun, November 1983 (22 pages).
	A302	Pyrolysis Kinetics for Green River Oil Shale From the Saline Zone, Burnham et al., February, 1982 (33 pages).
	A303	Reaction Kinetics Between CO <sub>2</sub> and Oil Shale Char, A.K. Burnham, March 22, 1978 (9 pages front & back).
	A304	Reaction Kinetics Between CO <sub>2</sub> and Oil Shale Residual Carbon. I. Effect of Heating Rate on Reactivity, Alan K. Burnham, July 11, 1978 (11 pages front and back).
	A305	High-Pressure Pyrolysis of Colorado Oil Shale, Alan K. Burnham & Mary F. Singleton, October 1982 (23 pages).
	A306	A Possible Mechanism Of Alkene/Akane Production in Oil Shale Retorting, A.K. Burnham, R.L. Ward, November 2 1980 (20 pages).
	A307	Enthalpy Relations For Eastern Oil Shale, David W. Camp, November 1987 (13 pages).
	A308	Oil Shale Retorting: Part 3 A Correlation of Shale Oil 1-Alkene/n-Alkane Ratios With Yield, Coburn et al., August 1, 1977 (18 pages).
	A309	The Composition of Green River Shale Oil, Glen L. Cook, et al., 1968 (12 pages).

EXAMINER:

Walk D. Suffin

DATE CONSIDERED: 5-2-2003

EXAMINER Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner



APPLICANT: Wellington, et al.

FILING DATE: April 24, 2001

RE GROUP 176 ED

APR 30 2002

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

**GROUP 3600**

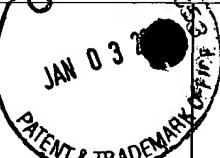
WG	A310	On-line, Mass Spectrometric Determination of Ammonia From Oil Shale Pyrolysis Using Isobutane Chemistry, Crawford et al., March 1988 (16 pages).
1	A311	Thermal Degradation of Green River Kerogen at 150° to 350° C Rate of Production Formation, J.J. Cummins & W.E. Robinson, 1972 (18 pages).
	A312	Retorting of Green River Oil Shale Under High-Pressure Hydrogen Atmospheres, LaRue et al., June 1977 (38 pages).
	A313	Retorting and Combustion Processes In Surface Oil-Shale Retorts, A.E. Lewis & R.L. Braun, May 2, 1980 (12 pages).
	A314	Oil Shale Retorting Processes: A Technical Overview, Lewis et al., March 1984 (18 pages).
	A315	Study of Gas Evolution During Oil Shale Pyrolysis by TQMS, Oh et al., February 1988 (10 pages).
	A316	The Permittivity and Electrical Conductivity of Oil Shale, A.J. Piwinski & A. Duba, April 28, 1975 (12 pages).
	A317	Oil Degradation During Oil Shale Retorting, J.H. Raley & R.L. Braun, May 24, 1976 (14 pages).
	A318	Kinetic Analysis of California Oil Shale By Programmed Temperature Micropyrolysis, John G. Reynolds & Alan K. Burnham, December 9, 1991 (14 pages).
	A319	Analysis of Oil Shale and Petroleum Source Rock Pyrolysis by Triple Quadrupole Mass Spectrometry: Comparisons o Gas Evolution at the Heating Rate of 10°C/Min., Reynolds et al. October 5, 1990 (57 pages).
	A320	Catalytic Activity of Oxidized (Combusted) Oil Shale for Removal of Nitrogen Oxides with Ammonia as a Reductant in Combustion Gas Streams, Part II, Reynolds et al., January 4, 1993 (9 pages).
	A321	Fluidized-Bed Pyrolysis of Oil Shale, J.H. Richardson & E.B. Huss, October 1981 (27 pages).
	A322	Retorting Kinetics for Oil Shale From Fluidized-Bed Pyrolysis, Richardson et al., December 1981 (30 pages).
	A323	Recent Experimental Developments in Retorting Oil Shale at the Lawrence Livermore Laboratory, Albert J. Rothman August 1978 (32 pages).
	A324	The Lawrence Livermore Laboratory Oil Shale Retorts, Sandholtz et al. September 18, 1978 (30 pages).
	A325	Operating Laboratory Oil Shale Retorts In An In-Situ Mode, W. A. Sandholtz et al., August 18, 1977 (16 pages).
	A326	Some Relationships of Thermal Effects to Rubble-Bed Structure and Gas-Flow Patterns in Oil Shale Retorts, W. A. Sandholtz, March 1980 (19 pages).
	A327	Assay Products from Green River Oil Shale, Singleton et al., February 18, 1986 (213 pages).
	A328	Biomarkers in Oil Shale: Occurrence and Applications, Singleton et al., October 1982 (28 pages).
	A329	Occurrence of Biomarkers in Green River Shale Oil, Singleton et al., March 1983 (29 pages).
	A330	An Instrumentation Proposal for Retorts in the Demonstration Phase of Oil Shale Development, Clyde J. Sisemore, April 19, 1977, (34 pages).
	A331	A Laboratory Apparatus for Controlled Time/Temperature Retorting of Oil Shale, Stout et al., November 1, 1976 (19 pages).
	A332	SO <sub>2</sub> Emissions from the Oxidation of Retorted Oil Shale, Taylor et al., November 1981 (9 pages).
	A333	Nitric Oxide (NO) Reduction by Retorted Oil Shale, R.W. Taylor & C.J. Morris, October 1983 (16 pages).
	A334	Coproduction of Oil and Electric Power from Colorado Oil Shale, P. Henrik Wallman, September 24, 1991 (20 pages).
	A335	<sup>13</sup> C NMR Studies of Shale Oil, Raymond L. Ward & Alan K. Burnham, August 1982 (22 pages).
	A336	Identification by <sup>13</sup> C NMR of Carbon Types in Shale Oil and their Relationship to Pyrolysis Conditions, Raymond L. Ward & Alan K. Burnham, September 1983 (27 pages).
	A337	Laboratory Study of Green River Oil Shale Retorting Under Pressure In a Nitrogen Atmosphere, Wise et al., September 1976 (24 pages).

EXAMINER:

Walt D. Smith

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner



APPLICANT: Wellington, et al.

FILING DATE: April 24, 2001

RECEIVED  
GROUP 176

APR 30 2002

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

WB	A338	Quantitative Analysis and Evolution of Sulfur-Containing Gases from Oil Shale Pyrolysis by Triple Quadrupole Mass Spectrometry, Wong et al., November 1983 (34 pages).
	A339	Quantitative Analysis & Kinetics of Trace Sulfur Gas Species from Oil Shale Pyrolysis by Triple Quadrupole Mass Spectrometry (TQMS), Wong et al., July 5-7, 1983 (34 pages).
	A340	Application of Self-Adaptive Detector System on a Triple Quadrupole MS/MS to High Explosives and Sulfur-Containing Pyrolysis Gases from Oil Shale, Carla M. Wong & Richard W. Crawford, October 1983 (17 pages).
	A341	An Evaluation of Triple Quadrupole MS/MS for On-Line Gas Analyses of Trace Sulfur Compounds from Oil Shale Processing, Wong et al., January 1985 (30 pages).
	A342	Source and Kinetics of Sulfur Species in Oil Shale Pyrolysis Gas by Triple Quadrupole Mass Spectrometry, Wong et al., October 1983 (14 pages).
	A343	The Centralia Partial Seam CRIP Underground Coal Gasification Experiment, Cena et al., June 1984 (38 pages).
	A344	Results of the Centralia Underground Coal Gasification Field Test, Hill et al., August 1984 (18 pages).
	A345	Excavation of the Partial Seam Crip Underground Coal Gasification Test Site, Cena et al., August 14, 1987 (11 pages).
	A346	Assessment of the CRIP Process for Underground Coal Gasification: The Rocky Mountain I Test, Cena et al., August 1988 (22 pages).
↓	A347	Mild Coal Gasification-Product Separation, Pilot-Unit Support, Twin Screw Heat Transfer, and H <sub>2</sub> S Evolution, Camp et al., August 9, 1991 (12 pages).
WB	A348	Underground Coal Gasification Site Selection and Characterization in Washington State and Gasification Test Design Randolph Stone & R.W. Hill, September 10, 1980 (62 pages).

EXAMINER:

Walter D. Buff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)



ATTY. DKT. NO. 5659-07000/111995

SERIAL NO. 09/841,289

APPLICANT: Wellington et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	H1	4,093,025	June 78	Terry			
WG	H3	4,895,206	Jan-90	Price			
WG	J1	326,439	Sep-1885	McEachen			
WG	J2	1,681,523	Feb-1928	Downey et. al.			
WG	J3	2,244,256	Jun-1941	Looman			
WG	J4	2,714,930	Aug-1955	Carpenter			
WG	J5	3,547,193	Dec-1970	Gill			
WG	J6	3,562,401	Feb-1971	Long			
WG	J7	4,089,374	May-1978	Terry			
WG	J8	4,423,311	Dec-1983	Varney, Sr.			
WG	J9	4,489,782	Dec-1984	Perkins			
WG	J10	4,626,665	Dec-1986	Fort, III			
WG	J11	4,694,907	Sep-1987	Stahl et. al.			
WG	J12	5,182,792	Jan-1993	Goncalves			
WG	J13	5,402,847	Apr-1995	Wilson et. al.			
WG	J14	5,491,969	Feb-1996	Cohn et. al.			
WG	J15	5,621,844	Apr-1997	Bridges			
WG	J16	6,244,338	Jun-2001	Mones			
WG	J17	6,389,814	May-2002	Viteri et al.			
WG	J18	6,412,559	Jul-2002	Gunter et al.			
WG	J20	3,680,633	Aug-1972	Bennett			
WG	J21	4,508,170	Apr-1985	Littman			

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION YES/NO
WG	J19	97/01017	Jan-1997	WO			

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

WG	H2	Hobson, G.D., Modern Petroleum Technology, Halsted Press, Applied Science Publishers LTD. 1973, pp. 786, 787
----	----	--

EXAMINER: *Walter O. Donahue*

DATE CONSIDERED: 5-1-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)



ATTY. DKT. NO. 5659-07000/TH1995

SERIAL NO. 09/841,289

APPLICANT: Wellington et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	G5	3,766,982	Oct-73	Justheim			
WG	G7	3,599,714	Aug-71	Messman et al.			
WG	G8	4,043,393	Aug-77	Fisher et al.			

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

WG	G6	Rogers, Rudy E. "Coalbed Methane: Principles and Practice" Prentice-Hall, Inc. 1994, pp. 164-165.
WG	G9	Hyne, Norman J. Geology for Petroleum Exploration, Drilling, and Production. McGraw-Hill Book Company, 1984, p. 264.

RECEIVED  
AUG 30 2002  
TC 1700

COPY OF PAPERS  
ORIGINALLY FILED

EXAMINER: Walter Q. Duff

DATE CONSIDERED: 5-1-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)

O 1  
JUL 30 2002  
PATENT & TRADEMARK OFFICE  
U.S. PATENT AND TRADEMARK OFFICE

ATTY. DKT. NO. 5659-07000/TH1995

SERIAL NO. 09/841,289

APPLICANT: Wellington et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
jk	G5	3,766,982	Oct-1973	Justheim			

RECEIVED  
AUG 13 2002  
TC 1700

COPY OF PAPERS  
ORIGINALLY FILED

EXAMINER:

*Walt D. Duff*

DATE CONSIDERED: *5-1-2003*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)



ATTY. DKT. NO. 5659-07000/TH1995

SERIAL NO. 09/841,289

APPLICANT: Wellington et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	F1	4,252,191	Feb-1981	Pusch et al.			
WG	F2	3,310,109	Mar-1967	J. W. Marx et al.			
WG	G1	3,675,715	Jul-1972	Speller, Jr.			
WG	G2	3,809,159	May-1974	Young et al.			

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

WG	F3	Thermal, Mechanical, and Physical Properties of Selected Bituminous Coals and Cokes, J. M. Singer and R. P. Tye, US Department of Interior, Bureau of Mines (1979) Government Report No. 8364.
WG	G3	Rogers, Rudy E. "Coalbed Methane: Principles and Practice" Prentice-Hall, Inc. 1994, pp. 68-97.
WG	G4	Department of Energy Coal Sample Bank and Database <a href="http://www.energy.psu.edu/arg/doesb.htm">http://www.energy.psu.edu/arg/doesb.htm</a> , June 4, 2002.

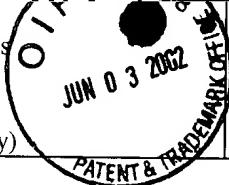
RECEIVED  
JUL 11 2002  
AC 1700

RECEIVED  
JUL 17 2002  
GROUP 3600

EXAMINER: Walter D. Duff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.



APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

**U.S. PATENT DOCUMENTS**

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	E1	3,181,613	May-1965	Krueger			
WG	E2	3,922,148	Nov-1975	Child			
WG	E3	3,924,680	Dec-1975	Terry			
WG	E4	5,020,596	Jun-1991	Hemsath			
WG	E5	5,229,102	Jul-1993	Minet et al.			
WG	E6	5,316,664	May-1994	Gregoli et al.			
WG	E7	5,366,012	Nov-1994	Lohbeck			
WG	E8	5,541,517	Jul-1996	Hartmann et al.			
WG	E9	5,861,137	Jan-1999	Edlund			JUN 12 2002
WG	E10	6,354,373	Mar-2001	Vercaemer et al.			
WG	E15	4,463,807	Aug-1984	Stoddard et al.			

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

WG	E11	Coal, Encyclopedia of Chemical Technology, Kirk, R.E., Kroschwitz, J.I., Othmer, D.F., Wiley, New York, 4th edition, 1991, Vol. 6, pp. 423-488.
WG	E12	Cortez et al., UK Patent Application GB 2,068,014 A, Date of Publication: August 5, 1981.
WG	E13	Wellington et al., US Patent Application 60/273,354, Filed March 5, 2001.
WG	E14	The VertiTrak System Brochure, Baker Hughes, INT-01-1307A4, 2001 8 pages.

EXAMINER: Walt D. Duff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

MAY 06 2002

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	C1	1,269,747	6/1918	Rogers			
	C2	1,457,479	6/1923	Wolcott			
	C3	1,634,236	6/1927	Ranney			
	C4	2,630,307	3/1953	Martin			
	C5	2,685,930	8/1954	Albaugh			
	C6	2,703,621	3/1955	Ford			
	C7	2,771,954	11/1956	Jenks et al.			
	C8	2,793,696	5/1957	Morse			
	C9	2,890,754	6/1959	Hoffstrom et al.			
	C10	2,890,755	6/1959	Eurenus et al.			
	C11	2,906,340	9/1959	Herzog			MAY 10 2002
	C12	2,932,352	4/1960	Stegemeier			
	C13	2,958,519	11/1960	Hurley			
	C14	3,010,513	11/1961	Gerner			
	C15	3,010,516	11/1961	Schleicher			
	C16	3,036,632	5/1962	Koch et al.			
	C17	3,044,545	7/1962	Tooke			
	C18	3,061,009	10/1962	Shirley			
	C19	3,062,282	11/1962	Schleicher			
	C20	3,084,919	4/1963	Slater			
	C21	3,113,619	12/1963	Reichle			
	C22	3,116,792	1/1964	Purre			
	C23	3,120,264	2/1964	Barron			
	C24	3,127,935	4/1964	Poettmann et al			
	C25	3,127,936	4/1964	Eurenus			
	C26	3,132,692	5/1964	Marx et al.			
	C27	3,205,944	9/1965	Walton			
	C28	3,233,668	2/1966	Hamilton et al.			
WG	C29	3,273,640	9/1966	Huntington			
WG	C30	3,275,076	9/1966	Sharp			

EXAMINER: *Walt D. Smith*

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.



APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	C31	3,294,167	12/1966	Vogel			
	C32	3,352,355	11/1967	Putman			MAY 08 2002
.	C33	3,379,248	4/1968	Strange			IC 100
.	C34	3,605,890	9/1971	Holm			
.	C35	3,617,471	11/1971	Schlinder et al.			
.	C36	3,661,423	5/1972	Garrett			
.	C37	3,770,398	11/1973	Abraham et al.			RECEIVED
.	C38	3,882,941	5/1975	Pelofsky			
.	C39	3,948,319	4/1976	Pritchett			MAY 10 2002
.	C40	3,954,140	5/1976	Hendrick			GROUP 3600
.	C41	3,986,349	10/1976	Egan			
.	C42	3,999,607	12/1976	Pennington et al.			
.	C43	4,008,762	2/1977	Fisher et al.			
.	C44	4,019,575	4/1977	Pisio et al.			
.	C45	4,026,357	5/1977	Redford			
.	C46	4,049,053	9/1977	Fisher et al.			
.	C47	4,057,293	11/1977	Garrett			
.	C48	4,067,390	1/1978	Camacho et al.			
.	C49	4,069,868	1/1978	Terry			
.	C50	4,084,637	4/1978	Todd			
.	C51	4,114,688	9/1978	Terry			
.	C52	4,144,935	3/1979	Bridges et al.			
.	C53	4,183,405	1/1980	Magnie			
.	C54	4,228,854	10/1980	Sacuta			
.	C55	4,243,101	1/1981	Grupping			
.	C56	4,277,416	7/1981	Grant			
.	C57	4,306,621	12/1981	Boyd et al.			
W	C58	4,324,292	4/1982	Jacobs et al.			
WG	C59	4,344,483	8/1982	Fisher et al.			

EXAMINER:

*Walt D. Sniff*

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	C60	4,353,418	10/1982	Hoekstra et al.			
	C61	4,384,613	5/1983	Owen et al.			
	C62	4,396,062	8/1983	Iskander			
	C63	4,397,732	8/1983	Hoover et al.			
	C64	4,444,255	4/1984	Geoffrey et al.			
	C65	4,448,251	5/1984	Stine			
	C66	4,448,252	5/1984	Stoddard et al.			RECEIVED MAY 08 2002 JC 1100
	C67	4,457,365	7/1984	Kasevich et al.			MAY 10 2002
	C68	4,476,927	10/1984	Riggs			
	C69	4,485,869	12/1984	Sresty et al.			
	C70	4,524,826	6/1985	Savage			
	C71	4,549,396	10/1985	Garwood et al.			
	C72	4,573,530	3/1986	Audeh et al.			
	C73	4,576,231	3/1986	Dowling et al.			
	C74	4,592,423	6/1986	Savage et al.			
	C75	4,608,818	9/1986	Goebel et al.			
	C76	4,637,464	1/1987	Forgac et al.			
	C77	4,651,825	3/1987	Wilson			
	C78	4,662,438	5/1987	Taflove et al.			
	C79	4,662,439	5/1987	Puri			
	C80	4,662,443	5/1987	Puri et al.			
	C81	4,691,771	9/1987	Ware et al.			
	C82	4,704,514	11/1987	Van Edmond et al.			
	C83	4,772,634	9/1988	Farooque			
	C84	4,787,452	11/1988	Jennings, Jr.			
	C85	4,817,711	4/1989	Jeambey			
	C86	4,818,370	4/1989	Gregoli et al.			
	C87	4,928,765	5/1990	Nielson			
WG	C88	5,064,006	11/1991	Waters et al.			
WG	C89	5,082,054	1/1992	Kiamanesh			

EXAMINER:

*Walt Q. Duff*

DATE CONSIDERED: 5-2-2002

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)

MAY 06 2002

ATTY. DKT. NO. 5659-07000/TH1625

SERIAL NO. 09/841,289

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

U.S. PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
WG	C90	5,082,055	1/1992	Hemsath			
	C91	5,217,076	6/1993	Masek			
	C92	5,261,490	11/1993	Ebinuma			
	C93	5,285,846	2/1994	Mohn			
	C94	5,289,882	3/1994	Moore			
	C95	5,411,104	5/1995	Stanley			
	C96	5,632,336	5/1997	Notz et al.			
	C97	5,713,415	2/1998	Bridges			
	C98	6,328,104	12/2001	Graue			
	D1	3,149,670	9/1964	Grant			MAY 10 2002
	D2	3,380,913	4/1968	Henderson			
	D3	3,794,116	2/1974	Higgins			
	D4	4,197,911	4/1980	Anada			
WG	D5	4,412,124	10/1983	Kobayashi			
WG	D8	3,316,962	5/1967	Lange			

FOREIGN PATENT DOCUMENTS

EXAM. INITIALS	REF. DES.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATI ON YES/NO
WG	C99	2,015,460	10/1991	CA			
WG	C100	940558 A1	9/1999	EP			
WG	C101	01/81723 A1	11/2001	WO			
WG	C102	01/81505 A1	11/2001	WO			
WG	D6	1,165,361	4/1984	CA			
WG	D7	1,168,283	5/1994	CA			

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

WG	C103	Appalachian Coals: Potential Reservoirs for Sequestering Carbon Dioxide Emissions from Power Plants While Enhancing CBM Production; C.W. Byer, et al., Proceedings of the International Coalbed Methane Symposium.
WG	C104	The Pros and Cons of Carbon Dioxide Dumping Global Warming Concerns Have Stimulated a Search for Carbon Sequestration Technologies; C. Hanisch, Environmental Science and Technology, American Chemical Society, Easton, PA.
WG	C105	Pilot Test Demonstrates How Carbon Dioxide Enhances Coal Bed Methane Recovery, Lanny Schoeling and Michael McGovern, Petroleum Technology Digest, September 2000, p. 14-15.

EXAMINER:

*Walt D. Duff*

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Form PTO-1449 (modified)  
List of Patents and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)

ATTY. DKT. NO. 5659-07000/TH1295

SERIAL NO. 09/841,289

APPLICANT: Wellington, et al.

GROUP: 1764

FILING DATE: April 24, 2001

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)

W6 C106	In Situ Measurement of Some Thermoporoelastic Parameters of a Granite, Berchenko et al., Poromechanics, A Tribute to Maurice Biot, 1998, p. 545-550.
W6 C107	Conversion characteristics of selected Canadian coals based on hydrogenation and pyrolysis experiments, W. Kalkreuth, C. Roy, and M. Steller. Geological Survey of Canada, Paper 89-8, 1989, pages 108-114, XP001014535
W6 D9	Passey et al., US Patent Application Publication 2001/0049342 A1, December 6, 2001.
W6 D10	Tar and Pitch, G. Collin and H. Hoeke. Ullmann's Encyclopedia of Industrial Chemistry, Vol. A 26, 1995, p. 91-127.

RECEIVED  
MAY 10 2002  
GROUP 3600

EXAMINER:

Walt D. Duff

DATE CONSIDERED: 5-2-2003

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.

Form PTO-1449 (modified)  
List of Prints and Publications  
For Applicant's Information  
Disclosure Statement  
(Use several sheets if necessary)

MAR 04 2003

ATTY. DKT. NO. 5659-07000/TH 295

SERIAL NO. 09/841,289

APPLICANT: Wellington et al.

GROUP: 1764

FILING DATE: April 24, 2001

**OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)**

WB

L12

Van Krevelen, COAL: Typology-Physics-Chemistry-Constitution, 1993, pp. 27, 42, 52, 322, 323, 324, 325, 326, 526, 527, 726.

RECEIVED

MAR -7 2003

TG 1700 MAIL ROOM

CB

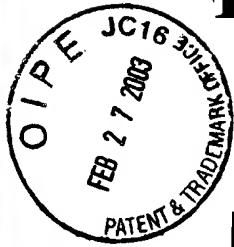
EXAMINER:

*Walt Q. Daff*

DATE CONSIDERED:

*4. 28-2003*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the patent owner.



# Electronic Information Disclosure Statement

## IN SITU THERMAL PROCESSING OF A COAL FORMATION TO PRODUCE PYROLYSIS PRODUCTS

Application:   
09/841289

Confirmation: 4722

Applicant(s): Scott Wellington

Docket  
Number: 5659-07000

Group Art  
Unit:

Examiner: Unknown

search string: ( 4087130 or 4537252 or re30019 or 2623596 or 3775185 or 4524113 or 5284878 or 5767584 or 5955039 or 4091869 or 4513816 or 0094813 or 5008085 or 4099567 or 0048994 or 64852332 or 20020018697 ).pn.

RECEIVED

MAR 04 2003

GROUP 3600

09/841289 HDENNESSI 00000074 501505 09841289

180.00 CH

### US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Citation No.	Patent Number	Date	Bar Code	Patentee	Class	Subclass
W6	P23	4087130	1978-05-02		Garrett		
W6	P24	4537252	1985-08-27		Puri		
W6	P25	re30019	1979-06-05		Lindquist		

	3596	1952-12-30		Whorton et al.
	3775185	1973-11-27		Kunz et al.
	4524113	1985-06-18		Lesieur
29	5284878	1994-02-08		Studer et al.
W6	P30	1998-06-16		Gore et. al
W6	P31	1999-09-21		Dowdy
W6	P32	1978-05-30		Hoyer
W6	P33	1985-04-30		Hubert
W6	P34	1869-09-14		Dickey
W6	P35	1991-04-16		Bain et al.
W6	P36	1978-07-11		Terry
W6	P37	1865-07-25		Parry
W6	P38	2002-11-26		Vinegar et al.

## Published Applications

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

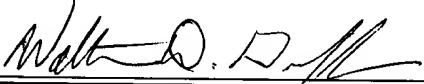
Init	Citation No.	Patent Number	Date	Bar Code	Patentee	Class	Subclass
W6	U01	20020018697	2002-02-14		Vinegar et al.		

## Remarks

(Remarks are not for responding to an office action.)

Please note: Foreign patent documents and non-patent references will be sent using a standard US PTO 1449 Form.

## Signature

Examiner Name	Date
	4-28-2003



# Electronic Information Disclosure Statement

RECEIVED  
APR 23 2003  
TC 1700

## IN SITU THERMAL PROCESSING OF A COAL FORMATION TO PRODUCE PYROLYSIS PRODUCTS

Application: 09/841289  
 Confirmation: 4722  
 Applicant(s): Scott Wellington  
 Docket Number: 5659-07000  
 Group Art Unit:  
 Examiner: Unknown  
 search string: (3221811 or 3987851 or 4042026 or 4005752 or 5868202 or 5126037 or 3477058 or 3580987).pn.

04/21/2003 MDAHTE1 00000145 501505 09841289

01 FC:1806 180.00 CH

### US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

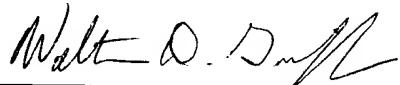
init	Citation No.	Patent Number	Date	Bar Code	Patentee	Class	Subclass
W6	P01	3221811	1965-12-07		Prats		
W6	P02	3987851	1976-10-26		Tham		
W6	P03	4042026	1977-08-16		Pusch et al.		
W6	P04	4005752	1977-02-01		Cha		



Wb	P05	5868202	1999-02-09		Hsu
Wb	P06	5126037	1992-06-30		Showalter
WC	P07	3477058	1968-11-04		Vedder et al.
WC	P08	3580987	1971-05-25		Priaroggia

RECEIVED  
APR 23 2003  
AC 1700

## Signature

Examiner Name	Date
	4-28-2003